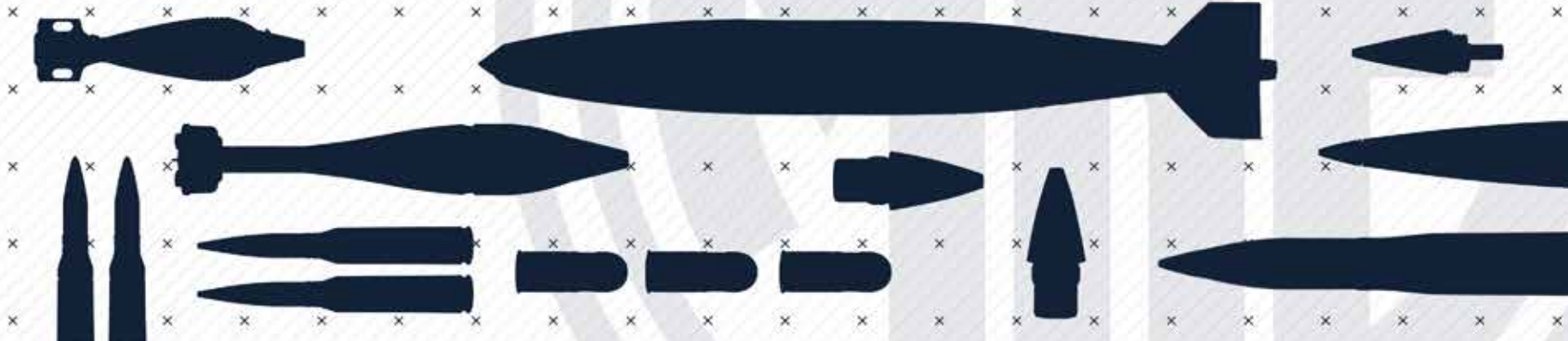


5

AMMUNITION



MAKİNE VE KİMYA
ENDÜSTRİSİ







AMMUNITION

4	25 MM
5	35 MM
6	40 MM x 46
7	40 MM x 53
10-11	60 MM
12-14	81 MM
16-17	120 MM (MORTAR AMMUNITION)
18-19	105 MM
22-23	120 MM (TANK AMMUNITION)
24-25	155 MM & 8" (GUN & HOWITZER AMMUNITION)
26-27	155 MM (EXTENDED RANGE HOWITZER AMMUNITION)
28-37	MECHANICAL FUZES
38-41	ELECTRONIC FUZES
42	MK 81 GP
43	MK 82 GP
44	MK 83 GP

45	MK 84 GP
48	MK 82-T
48	MK 82
49	NEB/NEB-T
50	4.5 LB. & 25 LB.
50	UAV AMMUNITION
51	SHAPED DEMOLITION CHARGE
52	IGNITION CHARGES AND PRIMERS
53	BLOCK DEMOLITION CHARGES
53	SALUTING CHARGES
54-55	HAND GRENADES
56	2.75 INCH ROCKET WARHEADS
56	SELF-DEFENSE MUNITION (MKE MOD 38)
56	MKE MOD 51 (M82) PRIMER
56	MKE MOD 51 (M82) PRIMER
57	PROPELLING CHARGES FOR HOWITZER AMMUNITION



ABOUT US

We produce a wide range of heavy weapon ammunition from 25 mm to 203 mm, hand grenades, aircraft munitions, and various types of fuzes (mechanical, electronic, UAV-compatible) for different purposes.

Our medium and heavy weapon ammunition family, manufactured by leveraging all the advantages of experience and technology, delivers superior performance under combat conditions.



25 MM

AMMUNITION



	M793 TP-T	M792 HEI-T	M791 APDS-T
Lenght	Max. 219.2 mm	Max. 219.2 mm	Max. 223 mm
Weight	~500 g	~500 g	~500 g
Projectile	Steel	Steel	Pusher (Al), Penetrating assbly. (Tungsten), Sabot (Plastic)
Filler	-	AXM-001	-
Detonator	M115 Percussion	M115 Percussion	M115 Percussion
Propellant Type	Double base	Double base	Single base
Propellant Weight	~0.089 kg (It is readjusted again for each propellant lot by shooting)	~0.089 kg (It is readjusted again for each propellant lot by shooting)	~0.096 kg (It is readjusted again for each propellant lot by shooting)
Net Explosive	0.095 kg/shot	0.127 kg/shot	0.102 kg/shot
Fuze	-	M758 self-destruct (If it doesn't crush any target, it will burst after 6.2 s)	-
Cartridge Case	10B30 steel	10B30 steel	10B30 steel
Range	~6000 m (at 650 milyem elevation)	If it doesn't crush any target, it will burst between 3800 - 4500 m	~17500 m (at 746 milyem elevation)
Muzzle Velocity	1100±25 m/s	1100±25 m/s	1345±20 m/s
Packing	55 rounds / hermetic box		
Weapon to be Used	M242, KBA, M811, GAV-12		

35 MM

ANTI-AIRCRAFT
AMMUNITION



	MSD 020 HE-I	ULD 034 TP-T	WK MAD 356 Practice
Complete Round Weight	1570 g	1570 g	1490 g
Complete Round Length	387 mm	387 mm	387 mm
Cartridge Case	672 g	672 g	228 g
Projectile Weight	550 g	550 g	372 g
Fuze	KZD 242	Dummy fuze	Dummy fuze
Self-destruction	11+2 seconds	-	-
Filler	Hexal	-	-
Filler Weight	112 g	-	-
Primer	WK ZSD 263	WK ZSD 263	-
Propellant	NC.01.T.35. OE.M.SMS	NC.01.T.35. OE.M.SMS	-
Propellant Weight	335 g	335 g	-
Muzzle Velocity	1175 m/s	1175 m/s	-
Maximum Range	11000 m	11000 m	-
Effective Range	6000 m	6000 m	-
Weapon to be Used	KDP (353 MK) gun	KDP (353 MK) gun	KDP (353 MK) gun
Packing	1 round / fiber container 25 fiber containers / wooden box		



40 MM x 46

LOW VELOCITY
GRENADE LAUNCHER CARTRIDGES



	MKE MOD 60 HE	TP-T Target Practice W/Tracer	TP	MKE MOD 63 GE Tear Gas	MKE MOD 81 LV HE
Complete Round Length	~100 mm	~101 mm	~101 mm	~106 mm	~ 99.70 MM
Complete Round Weight	~210 g	~222 g	~215 g	~230 g	~240 gr
Projectile Body	Steel	Aluminum	Aluminum	Aluminum	Steel
Tracer	-	Visible for min. 1.5 s at flight	-	-	-
Cartridge Case	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Cartridge Case Length	46.15 mm	-	-	46.15 mm	46,15 mm
Fuze	M551, FM551, K502	-	-	-	MKE MOD 80
Set Up Distance	14-27 m	-	-	-	>14 m
Safety Distance From Muzzle	13.4±0.3 m	-	-	-	14 m – 24 m
Filler	TNT or Comp B	-	-	CS (Lachrymatory agent)	Comp A5
Filler Weight	~35 g	-	-	~55 g	40 g
Muzzle Velocity	76±3 m/s	75±5 m/s	75±5 m/s	75±5 m/s	~ 75 m/s
Propellant	M9	-	-	M9	M9
Primer	M42	9 mm pistol cartridge primer, Boxer	9 mm pistol cartridge primer, Boxer	-	M42
Maximum Range	~400 m	~400 m	~400 m	~400 m	~400 m
Impact Radius	Kills @5m, hurts @10m	-	-	-	Min. 5 m
Packing	72 cartridges and 12 bandoliers / wooden box	72 cartridges / hermetic box			
Weapon to be Used	M79 Grenade Launcher, M203 Launchers or T40				
Smoke Release	-	-	-	min 15 s	-

40 MM x 53

HIGH VELOCITY
AUTOMATIC GRENADE
LAUNCHER CARTRIDGES



	MKE MOD 77 TP	MKE MOD 78 HE	MKE MOD 100 PPHE
Complete Round Weight	~380 g	~380 g	~388 g
Complete Round Length	max 112 mm	max 112 mm	max 112 mm
Muzzle Velocity	~250 m/s	~250 m/s	~245 m/s
Maximum Range	~2000 m	~2000 m	~2000 m
Accuracy	max 1×1 mils	max 1×1 mils	max 1×1 mils
Filler	-	Comp A5	Comp A5
Body Type	Aluminum (blue anodized coating)	Pre-shaped pre-fragmented + fragmented disc	Pre-shaped pre-fragmented + fragmented disc
Fragment Amount	-	min 500	min 500
Linkage	M16A2, MKE MOD 94 or equivalent	M16A2, MKE MOD94 or equivalent	M16A2, MKE MOD94 or equivalent
Propellant	M2	M2	M2
Purpose of Use	Target practice	Anti-personnel and soft targets	Air-burst Anti-personnel
Impact Radius	-	5 m	5 m
Fuze	-	MKE MOD 79 PD Fuze	ASELSAN Programmable Electronic Fuze
Safety Distance From Muzzle	-	18 m	18 m
Weapon to be Used	MK-19 or equivalent Automatic Grenade Launcher		MK-19 or equivalent AGL with Air Bursting Weapon Upgrade Kit
Packing	48 cartridges / hermetic box		



60 MM

MORTAR
AMMUNITION



60 MM

MORTAR
AMMUNITION

	M49 A2 HE	MKE MOD 257 TP	MKE MOD 260 Pre-Fragmented	MKE MOD 256 Training
Complete Round Weight	~1421 g	~1421 g	~1355 g	~1365 g
Complete Round Length	~243 mm	~ 243 mm	~ 244 mm	~ 243 mm
Fuze	MKE MOD 502 or AZDM 111 A2	MKE MOD 502 or AZDM 111 A2	MKE MOD 502 or AZDM 111 A2	MKE MOD 502 or AZDM 111 A2 (dummy)
Filler	TNT	Sorel Cement	Comp B.	Sand+wood chips
Filler Weight	~170 g	~ 170 g	~ 145 g	-
Ignition Cartridge	M5A1	M5A1	M5A1	M5A1 (inert)
Primer	M32	M32	M32	M32 (inert)
Muzzle Velocity	~158 m/s	~158 m/s	~158 m/s	-
Maximum Range	~1814 m	~1814 m	~1712 m	-
Impact Diameter	~13 m	-	~20 m	-
Propellant	M3A1, max 4 propellant increments	M3A1, max 4 propellant increments	M3A1, max 4 propellant increments	-
Packing	One round / fiber container, 10 containers / wooden box			
Weapon to be Used	60 mm Commando Mortar			-



M49 A2 HE



MKE MOD 257 TP



MKE MOD 260
PRE-FRAGMENTED



MKE MOD 256
TRAINING



81 MM

MORTAR
AMMUNITION

MKE MOD 214
HE-LONG RANGE



MKE MOD 238
TARGET PRACTICE
LONG RANGE



MKE MOD 239
TRAINING LONG RANGE



M301 A2
ILLUMINATING



81 MM

MORTAR
AMMUNITION

	MKE MOD 214 HE-Long Range	MKE MOD 238 Target Practice Long Range	MKE MOD 239 Training Long Range	M301 A2 Illuminating
Complete Round Weight	~4820 g	~4820 g	~4580 g	~4863 g
Complete Round Length	~500 mm	~500 mm	~500 mm	~571 mm
Fuze	AZDM 111 A2 or MKE MOD 502	AZDM 111 A2 or MKE MOD 502	AZDM 111 A2 (Dummy)	DM 93 or M9813 A1
Filler	TNT	Sorel Cement	Sand + wood chips	Illuminating material
Filler Weight	~800 g	-	-	-
Primer	M34	M34	M34 (Inert)	M34
Propellant	M8 Leaf propellant block, max 6 increments	M8 Leaf propellant block, max 6 increments	-	M8 Leaf propellant block, max 4 increments
Fin	MKE MOD 19	MKE MOD 19	MKE MOD 19	MKE MOD 19
Ignition Cartridge	MKE MOD 30	MKE MOD 30	MKE MOD 30 (Inert)	MKE MOD 30
Muzzle Velocity	~330 m/s	~330 m/s	-	~173 m/s
Maximum Range	~5800 m	~5800 m	-	~2100 m
Impact Diameter	~30 m	-	-	-
Packing	One round / fiber containe, 4 fiber containers / wooden box			One round / fiber container 3 containers / wooden box
Weapon to be Used	TOSAM UT-1 and 81 mm UT-1 Mortar		-	TOSAM UT-1 and 81 mm UT-1 Mortar



81 MM

MORTAR
AMMUNITION



	M43 A1 B1 HE	MKE MOD 273 Target Practice	MKE MOD 216 Training
Complete Round Weight	~3253 g	~3253 g	~3140 g
Complete Round Length	~338 mm	~338 mm	~338 mm
Fuze	AZDM 111 A2 or MKE MOD 502	AZDM 111 A2 or MKE MOD 502	AZDM 111 A2 (Dummy)
Filler	TNT	Sorel cement	Sand + wood chips
Filler Weight	~548 g	~550 g	-
Primer	M34	M34	M34 (Inert)
Propellant	M1A1, max 6 increments	M1A1, max 6 increments	-
Propellant Weight	45 g	45 g	-
Fin	M3	M3	M3
Ignition Cartridge	MKE MOD 29	MKE MOD 29	MKE MOD 29 (Inert)
Muzzle Velocity	~213 m/s	~213 m/s	-
Maximum Range	~3000 m	~3000 m	-
Impact Diameter	~20 m	-	-
Packing	One round / fiber container, 4 fiber containers / wooden box		
Weapon to be Used	M1 and M29 Mortars	M1 and M29 Mortars	-



120 MM

MORTAR
AMMUNITION



MKE MOD 209 RIFLED HE



MKE MOD 228 RIFLED TP



MKE MOD 250 RIFLED SMOKE HC



MKE MOD 236 A1 RIFLED ILLUM.



MKE MOD 227 RIFLED PRACTICE



MKE MOD 308 SMOOTHBORE HE

	MKE MOD 209 RIFLED HE	MKE MOD 228 RIFLED TP	MKE MOD 250 RIFLED SMOKE HC	MKE MOD 236 A1 RIFLED ILLUM.	MKE MOD 227 RIFLED PRACTICE	MKE MOD 308 SMOOTHBORE HE
Complete Round Weight	~18000 g	~18000 g	~18000 g	~17000 g	~17000 g	~15900 g
Complete Round Length	~827 mm	~827 mm	~827 mm	~824 mm	~827 mm	~817 mm
Fuze	M557 MKE MOD 124 MKE MOD 134 MKE MOD 92	M557 MKE MOD 124 MKE MOD 134 MKE MOD 92	MKE MOD 125 MKE MOD 145	MKE MOD 124 or DM93	M73 (Dummy)	MKE MOD 502 or AZDM 111 A2
Filler	TNT	Sorel Cement	HC	Illuminating material	Sand+wood chips	TNT
Filler Weight	~4.24 kg	-	-	-	-	~2.85 kg
Illumination/Smoke	-	-	Min 60 s	Min 60 s	-	-
Muzzle Velocity	~365 m/s	~365 m/s	~365 m/s	~365 m/s	-	~440 m/s
Maximum Range	~8180 m	~8180 m	~8180 m	~8180 m	-	~10000 m
Impact Diameter	~60 m	-	-	-	-	-
Ignition Cartridge	MKE MOD 37	MKE MOD 37	MKE MOD 37	MKE MOD 37	MKE MOD 37 (inert)	-
Propellant	Leaf Propellant, max 10 propellant inc.					Horseshoe prop.
Packing	1 round / fiber container, 2 fiber containers / wooden box					
Weapon to be Used	TOSAM HY-12 and 120 mm HY1-12 Rifled Mortars				-	120 mm Smoothe Bore Mortar

120 MM

MORTAR
AMMUNITION



105 MM

TANK GUNS & HOWITZER
AMMUNITION

	TANK GUN HE MKE MOD 233	TANK GUN TP MKE MOD 234	M1 HE HOWITZER	105/35 MM MOD 270 SUBCALIBER AMMUNITION	MKE MOD 288 HE-ER HOWITZER AMMUNITION
Complete Round Weight	~24505 g	~24125 g	~19000 g	~1570 g	~14500 g
Complete Round Length	~1028 mm	~1028 mm	~790 mm	~387 mm	~ 850 mm
Cartridge Case	MKE MOD 26	MKE MOD 26	M14	-	M14
Projectile Weight	-	-	-	550 g	~10680 g
Filler	TNT	Sorel cement	TNT	-	TNT
Filler Weight	~1.99 kg	-	~1.98 kg	-	~2.2 kg
Fuze	M557, MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD184	M73 (Dummy fuze)	M557, MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD184	Dummy fuze	M557, MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD184
Primer	-	-	-	MKE MOD 67	-
Propellant	M1	M1	M67 Dualgrain	NC.01.T.35. OE.M.SMS	105 mm ER Propellant
Propellant Weight	~3 kg	~3 kg	~1,24 kg	335 g	2450 g
Muzzle Velocity	~683 m/s	~683 m/s	~465 m/s	1175 m/s	~695 m/s
Maximum Range	~11000 m	~11000 m	~11000 m	11000 m	~17500 m
Packing	1 round / fiber container, 2 fiber containers / wooden box			1 round / fiber container, 25 fiber containers / wooden box	1 round / fiber container, 2 fiber containers / wooden box
Weapon to be Used	Leopard 1/M48T5 tanks with L7A3 cannon, M48A5 tank with M68 cannon	Leopard 1/M48T5 tanks with L7A3 cannon, M48A5 tank with M68 cannon	M101/M101A1 howitzers with M2A1/M2 A2 cannons, M52/M52A1 howitzers with M49 cannon	35 mm Barrel placed in 105 mm Tank Gun	M101/M101A1 howitzers with M2A1/ M2 A2 cannons, M52/ M52A1 howitzers with M49 cannon

105 MM

TANK GUNS & HOWITZER
AMMUNITION

MKE MOD 233 HE
TANK GUN



MKE MOD 234 TP
TANK GUN



M1 HE HOWITZER



MKE MOD 288 HE-ER
HOWITZER AMMUNITION



105/35 MM MOD 270
SUBCALIBER AMMUNITION





120 MM

TANK AMMUNITION



MKE MOD 300 HE-T



MKE MOD 301 TP-T



MKE MOD 310 HEAT-MP-T



MKE MOD 290 APFSDS-T



MKE MOD 291 TPCSDS-T



MKE MOD 292 HIGH PRESSURE

120 MM

TANK AMMUNITION

	MKE MOD 300 HE-T	MKE MOD 301 TP-T	MKE MOD 310 HEAT-MP-T	MKE MOD 290 APFSDS-T	MKE MOD 291 TPCSDS-T	MKE MOD 292 HIGH PRESSURE
Complete Round Weight	~27500 g	~27500 g	~25000 g	~20000 g	~18300 g	~22000 g for L-44 ~22200 g for L-55
Complete Round Length	~984 mm	~984 mm	~984 mm	~984 mm	~925 mm	~ 933.5 mm
Pressure	max 3200 bar	max 3200 bar	max 3200 bar	-	-	6410-6900 bar for L-44 7030-7430 bar for L-55
Cartridge Case	Combustible case	Combustible case	Combustible case	Combustible case	Combustible case	Combustible case
Filler	TNT	Sorel cement	RDX	-	-	-
Filler Weight	4240 g	4200 g	1760 g	-	-	-
Fuze	MKE MOD 305, MKE MOD 307	MKE MOD 305, MKE MOD 307	-	-	-	-
Propellant	CEP-2 Doublebase	CEP-2 Doublebase	CEP-2 Doublebase	NC-NG Doublebase	NC-NG Doublebase	NC-NG Doublebase
Muzzle Velocity	870 m/s	870 m/s	925 m/s	1705±15 m/s	1730 m/s	-
Effective Range	~2000 m	-	~2000 m	~2000 m	~2000 m	-
Accuracy	max 1×1 artillery mils (@1000 m)	-	max 0.3×0.3 artillery mils (@1000 m)	-	-	-
Penetration	-	-	400 mm (On 225 mm thick plate placed at 200 m with 34° inclination)	658 mm (on NATO 70° steel shell)	-	-
Packing	1 round /hermetic box 20 hermetic boxes/pallet					
Weapon to be Used	44 caliber M60T and Leopard 2A4		NATO 120mm smooth-bore cannons, L-44 and L-55 (M60 A1 Tank, L-44 (Leopard 2), L-55 (Leopard 2 A6, Altay))			



155 MM & 8"

GUN & HOWITZER
AMMUNITION



	155 mm GUN M101 HE	155 mm HOWITZER M107 HE	155 mm HOWITZER TP MKE MOD 272	8" HOWITZER M106 HE
Weight w/Lifting Plug	~43125 g	~42927 g	~42927 g	~91106 g
Length w/ Lifting Plug	~681 mm	~681 mm	~681 mm	~872 mm
Fuzes	MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD 184, M557	MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD 184, M557	MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD 184, M557	MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD 184, M557
Filler	TNT	TNT	Sorel Cement	TNT
Filler Weight	~6.6 kg	~6.6 kg	~6.6 kg	~16.5 kg
Propellant Charge	M19	M4A2, M3A1, M119A2	M4A2, M3A1, M119A2	-
Propellant	M6	M1	M1	M1, M2
Muzzle Velocity	~640 m/s	~564-684 m/s (w/different howitzers)	~564-684 m/s (w/different howitzers)	~594 m/s
Maximum Range	23500 m	~14600-18100 m (w/different howitzers)	~14600-18100 m (w/different howitzers)	16800 m
Supp. Charge	TNT	TNT	-	TNT
Weapon to be Used	M2 howitzer w/M2 cannon	M109A1, M109A1B1, M109A2, M109A3, M198, PANTER and FIRTINA Howitzer	M109A1, M109A1B1, M109A2, M109A3, M198, PANTER and FIRTINA Howitzer	M2, M2A1 M2A1E1, M47

155 MM & 8"

GUN & HOWITZER
AMMUNITION



155 MM M101 HE GUN

155 MM M107 HE HOWITZER

155 MM MKE MOD 272 TP HOWITZER

8" M106 HE HOWITZER



155 MM

EXTENDED RANGE
HOWITZER AMMUNITION



MKE MOD 274 HEER



MKE MOD 276 TRAINING



MKE MOD 277 PRACTICE

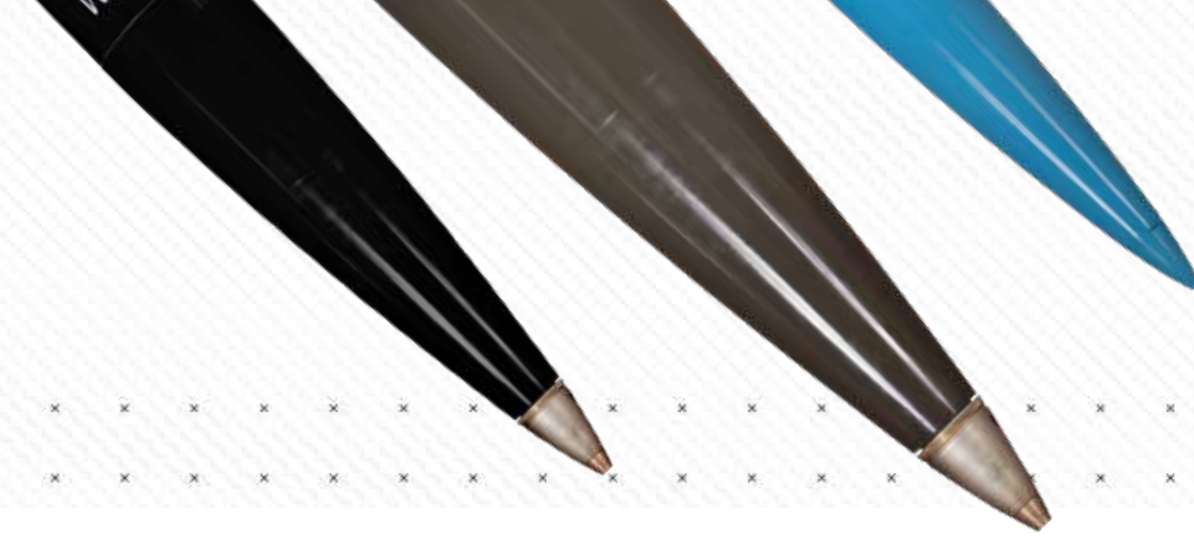


MKE MOD 281 TP-ER

155 MM

EXTENDED RANGE
HOWITZER AMMUNITION

	MKE MOD 274 HEER	MKE MOD 276 TRAINING	MKE MOD 277 PRACTICE	MKE MOD 281 TP-ER
Weight w/Lifting Plug	~45350 g	~44290 g	~45500 g	~45459 g
Length w/ Lifting Plug	~950 mm	~950 mm	~950 mm	~950 mm
Fuzes	MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD 184 M582A1, M564, M557, M739, M739A1, AS7250	M73 Dummy	M73 Dummy	MKE MOD 90, MKE MOD 92, MKE MOD 134, MKE MOD 135, MKE MOD 184 M582A1, M564, M557, M739, M739A1, AS7250
Filler	TNT	Sand and Wood Chips	Sorel Cement	Sorel Cement
Filler Weight	~10.5 kg	~10.5 kg	~10.5 kg	~10 kg
Propellant Charge	Modular Charge (3 to 6 modules)	-	Modular Charge (3 to 6 modules)	Modular Charge (3 to 6 modules)
Muzzle Velocity	~945 m/s	-	-	~945 m/s
Maximum Range	~39000 m	-	~31554 m	~39000 m
Base Bleed	Active	Inert	Inert	Active
Supp. Charge	TNT	-	-	TNT
Dispersion [at 29250 m (%75 of max. range)]	Firtina : %0.64 Panter : %0.74	-	-	-
Weapon to be Used	FIRTINA and PANTER Howitzers or equal 52 cal. weapon systems	-	FIRTINA and PANTER Howitzers or equal 52 cal. weapon systems	FIRTINA and PANTER Howitzers or equal 52 cal. weapon systems



MECHANICAL FUZES

MKE MOD 45
HAND GRENADE FUZE



	MKE MOD 45 HAND GRENADE FUZE
Fuze Function	Pyrotechnic delayed detonation
Body Material	Die Casting Zinc Alloy
Weight	~85 g
Length	95 mm
Delay Time	3,90-5,20 s
Primer	M42 Percussion primer
Thread	W18×1"/12 or 0,5625"-12UNC-1A
Ammunition Used	MK2 Defence Hand Grenade

MKE MOD 47
HAND GRENADE FUZE



	MKE MOD 47 HAND GRENADE FUZE
Fuze Function	Pyrotechnic delayed detonation
Body Material	Polycarbonate Plastic
Weight	~85 g
Length	94.6 mm
Delay Time	3,90-5,20 s
Primer	M42 Percussion primer
Thread	W18×1"/12 or 0,5625"-12UNC-1A
Ammunition Used	MK2 MOD 46 Practice Hand Grenade

MKE MOD 49
HAND GRENADE FUZE



	MKE MOD 49 HAND GRENADE FUZE
Fuze Function	Pyrotechnic delayed detonation
Body Material	Die Casting Zinc Alloy
Weight	~85 g
Length	94.6 mm
Delay Time	3,90-5,20 s
Primer	M42 Percussion primer
Thread	W18×1"/12 or 0,5625"-12UNC-1A
Ammunition Used	MKE MOD 48 Offensive Hand Grenade

DOUBLE SAFETY
GRENADE FUZE



	DOUBLE SAFETY GRENADE FUZE
Fuze Functioning	Pyrotechnic Delayed Detonation
Delay Time	3,90 – 5,20 Seconds
Capsule	Point-Detonating M42
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Weight	~85 gr
Length	95 mm (MAX)
Threads	W18×1"/12 or 0,5625"-12UNC-1A
Fuze Safety	Double Safety System (Pull Ring / Safety Latch)
Shelf-Life	10 Years
Ammunitions Used with	MK2 Defense Grenade MK2 MKE MOD 44 Defense Grenade MK3 A2 Offensive Grenade MKE MOD 56 OC Grenade MKE MOD 48 Offensive Grenade

MECHANICAL FUZES

MKE MOD 79
40 MM HV GRENADE
LAUNCHER FUZE



	MKE MOD 79 - 40 mm HV GRENADE LAUNCHER FUZE
Type	Point-Detonating
Fuze Functioning	Super-Quick (SQ)
Rotor Non-Arming / Arming RPM	1000 / 3000 RPM
Rotor Non-Arming / Arming Acceleration	600 / 2500 G
Muzzle Safety Distance (Minimum)	18 Meters
Functioning Distance	36 Meters
Storage Temperature Range	-54°C / +71°C
Operation Temperature Range	-46°C / +63°C
Weight	~90 gr
Length	44,5 mm (MAX)
Threads	1 15/32"-24NS-2A
Shelf-Life	10 Years
Ammunition Used with	40 mm High-Velocity Grenade Launcher Ammunitions
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157



MECHANICAL FUZES

MKE MOD 80 40 MM LV
GRENADE LAUNCHER FUZE



	MKE MOD 80 - 40 mm LOW-VELOCITY GRENADE LAUNCHER FUZE
Type	Point-Detonating
Fuze Functioning	Super-Quick (SQ)
Rotor Non-Arming / Arming RPM	1000 / 3000 RPM
Rotor Non-Arming / Arming Acceleration	600 / 2500 G
Muzzle Safety Distance (Minimum)	14 Meters
Functioning Distance	28 Meters
Storage Temperature Range	-54°C / +71°C
Operation Temperature Range	-46°C / +63°C
Weight	~90 gr
Threads	M35×1-6H
Shelf-Life	10 Years
Ammunition Used with	40 mm Low-Velocity Grenade Launcher Ammunitions
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157

MKE MOD 90
CONCRETE PIERCING
ARTILLERY FUZE



	MKE MOD 90 CONCRETE PIERCING ARTILLERY FUZE
Type	Mechanical Point-Detonating (Delay)
Fuze Functioning	Delay (0,1 Seconds)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	23 gr Tetryl
Weight	~900 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and Tank High-Explosive Ammunitions
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

MKE MOD 92 MECHANICAL
ARTILLERY FUZE



	MKE MOD 92 MECHANICAL ARTILLERY FUZE
Type	Mechanical Point-Detonating (SQ-DL)
Fuze Functioning	Super-Quick - Delay (0,05 Seconds)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	23 gr Tetryl
Weight	~730 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and High-Explosive Tank Ammunitions
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

MECHANICAL FUZES

M557 MECHANICAL
ARTILLERY FUZE



	M557 MECHANICAL ARTILLERY FUZE
Type	Point-Detonating (PD)
Fuze Functioning	Super-Quick (SQ) - Delay (0,05 Seconds)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 2000 RPM
Muzzle Safety Distance (Minimum)	50 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	22 gr RDX
Weight	~975 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and High-Explosive Tank Ammunitions
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157



MECHANICAL FUZES

MKE MOD 502
MORTAR FUZE



AZDM 111 A2
MORTAR FUZE



	MKE MOD 502 MORTAR FUZE
Type	Mechanical Point-Detonating
Fuze Functioning	Super-Quick (SQ) - Delay (0,06 Seconds)
Maximum Acceleration	11.000 G
SAD Non-Arming / Arming Acceleration	400 / 650 G
Upper Body Arming Acceleration	1000 G
Muzzle Safety Distance (Minimum)	≥0,8 Seconds (40 Meters)
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	13 gr Tetryl
Weight	~200 gr
Length	87,5 mm (MAX)
Threads	1,5"-12UNS-1A
Fuze Safety	Triple Safety System
Shelf-Life	10 Years
Weapons Used with	60 mm, 81 mm and 120 mm Mortar
Ammunitions Used with	60 mm, 81 mm and 120 mm Tail-Balanced Mortar Ammunition
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

	AZDM 111 A2 MORTAR FUZE
Type	Mechanical Point-Detonating (PD)
Fuze Functioning	Super-Quick (SQ) - Delay (0,06 Seconds)
Maximum Acceleration	11.000 G
SAD Non-Arming / Arming Acceleration	400 / 650 G
Muzzle Safety Distance (Minimum)	≥0,8 Seconds (40 Meters)
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	13 gr Tetryl
Weight	~200 gr
Length	85 mm (MAX)
Threads	1,5"-12UNF-1A
Fuze Safety	Double Safety System
Shelf-Life	10 Years
Weapons Used with	60 mm and 81 mm Mortar
Ammunitions Used with	60 mm and 81 mm Tail-Balanced Mortar Ammunition
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

MECHANICAL FUZES

MKE MOD 305 SMOOTHBORE
TANK AMMUNITION FUZE



	MKE MOD 305 SMOOTHE-BORE TANK AMMUNITION FUZE
Type	Mechanical Point-Detonating / Fin Stabilized Tank Ammunition Fuze
Fuze Functioning	Super-Quick - Delay (0,06 Seconds)
SAD Non-Arming / Arming Acceleration	400 / 650 G
Muzzle Safety Distance (Minimum)	50 Meters
Exact Function Range	200 Meters
Arming Time	150±50 Milliseconds
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	13 gr Tetryl
Weight	~1340 gr
Length	85 mm (MAX)
Threads	2"-12UNS-1A
Fuze Safety	Double Safety System
Shelf-Life	10 Years
Weapons Used with	M60, Leopard A2, Altay
Ammunitions Used with	120 mm MKE MOD 300 HE Tank Ammunition, 120 mm MKE MOD 301 D/A Ammunition
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157; AOP-4187

MKE MOD 53 ROCKET FUZE



	MKE MOD 53 ROCKET FUZE
Type	Point-Detonating (SQ-DL)
Fuze Functioning	Super-Quick (SQ) - Delay (0,05 Seconds)
Upper Body Arming RPM	10.000 RPM
Safety Device Non-Arming / Arming RPM	10.000 / 15.000 RPM
Muzzle Safety Distance (Minimum)	10 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	25 gr Tetry
Weight	~637 gr
Length	123,7 mm (MAX)
Threads	1 7/16"-12UN-2A
Shelf-Life	10 Years
Ammunitions Used with	107 mm Anadolu Rocket (Artillery Rocket)
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157



MECHANICAL FUZES

M505 A3 (20 MM AMMUNITION) FUZE



	M505 A3 (20 MM AMMUNITION) FUZE
Type	Point-Detonating (PD)
Fuze Functioning	Super-Quick (SQ)
Maximum Acceleration	120.000 G
SAD Non-Arming / Arming RPM	40200 / 49800 RPM
Muzzle Safety Distance (Minimum)	3 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	480±50 mg RDX
Weight	~21,45 gr
Length	31,2 mm (MAX)
Threads	0,5625"-35NS-2A
Shelf-Life	10 Years
Ammunitions Used with	20 mmx102 M56A3 HEI and HEI-T Ammunition 20 mmx110 HEI and HEI-T Ammunition (MKE MOD 1102-1109)
Applied Standards	MIL-STD-331; AOP-4157

KZD 242 (35 MM AMMUNITION) FUZE



	KZD 242 (35 MM AMMUNITION) FUZE
Type	Point-Detonating (SQ-SD)
Fuze Functioning	Super-Quick – Self-Destruction
Self-Destruction RPM	≤ 35.000 RPM
SAD Non-Arming / Arming RPM	35000 / 70000 RPM
Self-Destruction Time	11+2 Seconds
Arming / Muzzle Safety Distance (Minimum)	40 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Weight	~46 gr
Length	80 mm (MAX)
Threads	M22×1.5-6e
Shelf-Life	10 Years
Ammunitions Used with	35 mm HE-I MSD 020 Anti-Aircraft Destruction Incendiary Ammunition
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157

MKE MOD 128 UAV AMMUNITION FUZE



	MKE MOD 128 UAV Ammunition Fuze
Type	Drone Fuze
Fuze Functioning	Super-Quick (PD SQ)
Arming Time	~1 second
UAV Safe Seperation	Minimum 6 meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	13 gr RDX or Tetryl
Length	74,6 mm (MAX)
Threads	1,5"-12 UNF-1A
Diameter	49 mm
Shelf-Life	10 Years
Fuze Safety	1- Transportation Safety Wire 2- Drone Connecting Ring

MKE MOD 122 (76/62 MM NAVAL AMMUNITION) FUZE



	MKE MOD 122 (76/62 mm NAVAL AMMUNITION) FUZE
Type	Point-Detonating / Back-Up
Fuze Functioning	Super-Quick (SQ) – Back-Up (0,05 Seconds)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	46,5 gr Tetryl
Weight	895 gr
Length	203 mm (MAX)
Threads	M58 × 1,5 6H
Shelf-Life	10 Years
Ammunitions Used with	76/62 Naval Ammunition
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157



MECHANICAL FUZES

MKE MOD 150 ROCKET FUZE



MKE MOD 155 ROCKET FUZE



MKE MOD 137 ROCKET FUZE



MKE MOD 138 NAVAL AMMUNITION FUZE



	MKE MOD 150 Rocket Fuze
Type	Point-Detonating (SQ-DL)
Fuze Functioning	Super-Quick (SQ) Short Delay (1-5 ms) Long Delay (7-30 ms)
Zigzag Mechanism Not-Arming / Arming Acceleration	15 / 25 G
Muzzle Safety Distance	150 - 400 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	23,2 gr Tetryl
Weight	~755 gr
Length	195,36 mm (MAX)
Threads	M45×2
Shelf-Life	10 Years
Ammunitions Used with	122 mm MBRL Ammunition
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157; STANAG 2916

	MKE MOD 155 Rocket Fuze
Type	Mechanical Point-Detonating (SQ)
Fuze Functioning	Super-Quick
Zigzag Mechanism Not-Arming / Arming Acceleration	13 / 40 G
Muzzle Safety Distance (Minimum)	200 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	9 gr Tetryl
Weight	~340 gr
Length	101,6 mm (MAX)
Threads	1 7/16"-16UN-2A
Shelf-Life	10 Years
Ammunitions Used with	MK 40 MOD 3, MK 4 MOD 10, MK 4 MODs, MK 4 MOD 13
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157

	MKE MOD 137 Rocket Fuze
Type	Point-Detonating (SQ-DL)
Fuze Functioning	Super-Quick (SQ) - Delay (0,05 Seconds)
Safety Device Non-Arming / Arming RPM	1000 / 4000 RPM
Impact Module Non-Arming / Arming RPM	750 / 2100 RPM
Muzzle Safety Distance (Minimum)	50 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	25 gr Tetryl
Weight	~530 gr
Length	122,55 mm (MAX)
Diameter	45 mm
Threads	1 7/16"-12UN-2A
Shelf-Life	10 Years
Ammunitions Used with	107 mm MBRL Rocket (Artillery Rocket)
Applied Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

	MKE MOD 138 Naval Ammunition Fuze
Type	Mechanical Point-Detonating (SQ-SD)
Fuze Functioning	Super-Quick - Self-Destruction
Self-Destruction RPM	≤ 35.000 RPM
SAD Non-Arming / Arming RPM	35.000 / 50.000 RPM
Self-Destruction Time	12±5 Seconds
Arming / Muzzle Safety Distance (Minimum)	35 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	5 gr Tetryl
Weight	~45 gr
Length	71 mm (MAX)
Threads	M22×1-6e
Shelf-Life	10 Years
Ammunitions Used with	40/70 Naval Ammunitions
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157



ELECTRONIC FUZES

MKE MOD 124
ELECTRONIC TIME FUZE



	MKE MOD 124 Electronic Time Fuze
Type	Electronic Time, Mechanical Point-Detonating (PD SQ)
Fuze Functioning	Electronic Time, Super-Quick (PD Back-Up)
Electronic Setting Type	Inductive Fuze Setting Device (STANAG 4369 and AOP-22 Compliant)
Electronic Time Setting	2-199,9 Seconds (0,1 Increments)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	5 gr Blackpowder
Weight	~730 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and Tank (Illumination/Smoke) Ammunitions
Related Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

MKE MOD 134
ELECTRONIC TIME FUZE



	MKE MOD 134 Electronic Time Fuze
Type	Electronic Time, Mechanical Point-Detonating (PD SQ)
Fuze Functioning	Electronic Time, Super-Quick (PD Back-Up)
Electronic Setting Type	Inductive Fuze Setting Device (STANAG 4369 and AOP-22 Compliant)
Electronic Time Setting	2-199,9 Seconds (0,1 Increments)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	22 gr RDX / Tetryl
Weight	~685 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and High-Explosive Tank Ammunitions
Related Standards	STANAG 2916; MIL-STD-1316; MIL-STD-331; AOP-4157

ELECTRONIC FUZES

MKE MOD 184
MULTI-PURPOSE ARTILLERY FUZE



	MKE MOD 184 Multi-Purpose Artillery Fuze
Type	Multi-Purpose Artillery Fuze
Fuze Functioning	Super-Quick (SQ) - Delay (0,05 Seconds) Time - Proximity
Electronic Setting Type	Inductive Fuze Setting Device (STANAG 4369 and AOP-22 Compliant)
Electronic Time Setting	2-199,9 Seconds (0,1 Increments)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Height Of Burst	6 m and 12 m
Super-Quick	< 100 μs
Delay	0,05 sn
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	22 gr RDX / Tetryl
Weight	~700 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and Tank High-Explosive Ammunitions
Related Standards	STANAG 4187; MIL-STD-1316; MIL-STD-331; STANAG 4157



MKE MOD 135
ELECTRONIC PROXIMITY
FUZE



ELECTRONIC FUZES

	MKE MOD 135 Electronic Prox imity Fuze
Type	Electronic Proximity Fuze
Fuze Functioning	Electronic Proximity, Mechanical PDSQ (PD Back-Up)
Electronic Setting Type	Inductive Fuze Setting Device (STANAG 4369 and AOP-22 Compliant)
Electronic Time Setting	2-199,9 Seconds (0,1 Increments)
Maximum RPM	≤ 30.000 RPM
Maximum Acceleration	≤ 30.000 G
SAD Non-Arming / Arming RPM	1000 / 4000 RPM
SAD Non-Arming / Arming Acceleration	25 / 250 G
Muzzle Safety Distance (Minimum)	35 Meters
Height Of Burst	6 m and 12 m
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	22 gr RDX / Tetry
Weight	~700 gr
Length	151,6 mm (MAX)
Threads	2"-12UNS-2A
Shelf-Life	10 Years
Ammunitions Used with	105-120-155-203 mm Spin Stabilized Cannon, Howitzer, Mortar and High-Explosive Tank Ammunitions
Related Standards	STANAG 4187; MIL-STD-1316; MIL-STD-331; STANAG 4157

MKE MOD 307
SMOOTHBORE
AMMUNITION FUZE



	MKE MOD 307 Smoothbore Ammunition Fuze
Type	Electronic Point-Detonating
Fuze Functioning	Electronic Super-Quick Electronic Time (0,5-50 Seconds / 0,01 Increments)
SAD Non-Arming / Arming Acceleration	400 / 650 G
Muzzle Safety Distance (Minimum)	50 Meters
Exact Function Range	400 Meters
Arming Time	150±50 Milliseconds
Storage Temperature Range	-54°C / +71°C
Operating Temperature Range	-46°C / +63°C
Booster	~22 gr Tetryl / RDX
Weight	~1340 gr
Length	151,6 mm (MAX)
Threads	2"-12 UNS-1A
Shelf-Life	10 Years
Ammunitions Used with	120 mm MKE MOD 300 HE Tank Ammunition, 120 mm MKE MOD 301 D/A Ammunition
Applied Standards	MIL-STD-1316; MIL-STD-331; AOP-4157; STANAG 2916

MKE MOD 127 INDUCTIVE FUZE SETTING DEVICE



	MKE MOD127 INDUCTIVE FUZE SETTING DEVICE
Type	Inductive Fuze Setting Device Compliant to STANAG 4369/AOP-22
Setting Device Function	Electronic Time Setting, Proximity Mode, Impact Mode, Storage Mode
Electronic Time Setting	2-199,9 Seconds (0.1 Increments)
Shelf-Life	10 Years
Battery	3 pieces 1.5V commercial AA size batteries and/or embedded battery (can be charged with 5V charging adapter)
Weight	~890 gr
Protection Class	IP 65
Operating Temperature Range	-32 °C / +43 °C
Width-Height-Depth	104-202,5-43 mm

250 LB.
MK 81 GP
AIRCRAFT BOMB



MK82 MOD1
HE



MK82 MOD1
PRE-FRAGMENTED



MK82 MOD1
PRACTICE



500 LB.
MK 82 GP
AIRCRAFT BOMB

	MK 81 GP
Weight w/o Tail Assembly	115 (±5) kg (w/nose plug – w/shipping cap)
Length w/o Tail Assembly	1180±10 mm (w/nose plug – w/shipping cap)
Maximum Diameter	~228 mm
Filler	TNT
Filler Weight	~40 kg
Center of Gravity	650±10 mm (w/nose plug – w/shipping cap)
Fuze	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes
Packing	6 pcs in a metal pallet

	MK82 MOD1 HE	MK82 MOD1 PRE-FRAGMENTED	MK82 MOD1 PRACTICE
Weight	239 kg	245 kg	234 kg
Length	2268±11 mm	2280 mm	2268±11 mm
Fuze	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes
Filler	TNT	TNT	Sorel Cement
Filler Weight	~87 kg	~46 kg	-
Ball Amount	-	~37000	-
Crater Diameter	8 m	-	-
Hazards Fragmentation Distance Range (HFDR)	220 m	-	-
Maximum Fragmentation Distance Range (MFDR)	1810 m	-	-
Packing	6 pcs in a metal pallet		



1000 LB.
MK 83 GP
AIRCRAFT BOMB



	MK 83 GP
Weight w/o Tail Assembly	410 (±20) kg (w/nose plug – w/shipping cap)
Length w/o Tail Assembly	1933±10 mm (w/nose plug – w/shipping cap)
Maximum Diameter	~355 mm
Filler	TNT
Filler Weight	~190 kg
Center of Gravity	1095±10 mm (w/nose plug – w/shipping cap)
Fuze	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes
Packing	2 pcs in a metal pallet

2000 LB.
MK 84 GP
AIRCRAFT BOMB



MK84 HE

MK84
PRACTICE

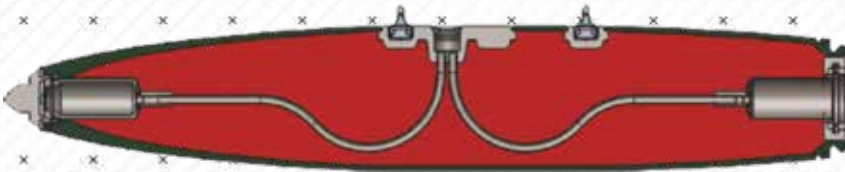
	MK84 HE	MK84 PRACTICE
Weight	~884 kg	~884 kg
Length	3797 mm	3797 mm
Fuze	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes	M904, M905, Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes
Filler	TNT	Sorel Cement
Filler Weight	~428 kg	-
Crater Diameter	14 m	-
Hazards Fragmentation Distance Range (HFDR)	380 m	-
Maximum Fragmentation Distance Range (MFDR)	2100m	2100m
Packing	2 pcs in a metal pallet	





500 LB.
MK 82-T

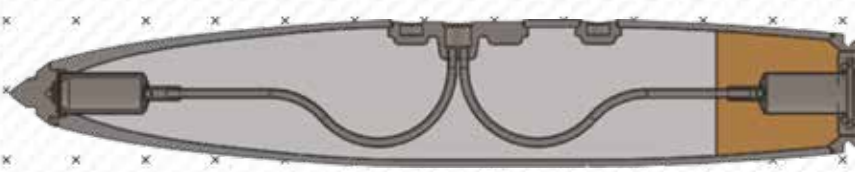
THERMOBARIC
AIRCRAFT BOMB



	MKE 82-T Thermobaric Aircraft Bomb
Weight w/o Tail Assembly	228 (+12/-20) kg (w/nose plug – w/shipping cap)
Length w/o Tail Assembly	1632±10 mm (w/nose plug – w/shipping cap)
Maximum Diameter	~273 mm
Filler	PBP-003 Thermobaric explosive (PBXN-113 equivalent)
Explosive Filler Weight	~87 kg
Center of Gravity	875±10 mm (w/nose plug – w/shipping cap)
Fuze	Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes
Packing	6 pcs in a metal pallet

500 LB.
MK 82

LOW-COLLATERAL
AIRCRAFT BOMB



	MKE 82 Low-Collateral Aircraft Bomb
Weight w/o Tail Assembly	233±20 kg (w/nose plug – w/shipping cap)
Length w/o Tail Assembly	1632±10 mm (w/nose plug – w/shipping cap)
Maximum Diameter	~273 mm
Filler	TNT and Sorel Cement
Explosive Filler Weight	~11.5 kg
Center of Gravity	875±10 mm (w/nose plug – w/shipping cap)
Impact Radius	max 183 m
Fuze	Tail Fuze (Onur 1 MOD 3 series, Onur 2 series, FMU-139 series and FMU-152 series fuzes)
Packing	6 pcs in a metal pallet

NEB/NEB-T

PENETRATOR BOMB



	NEB	NEB-T (Thermobaric)
Platforms	F-4E/2020, F-16	F-4E/2020, F-16
Weight	~870 kg	~870 kg
Length	~2600 mm	~2600 mm
Diameter	~457 mm	~457 mm
Explosive Augmenting Charge Follow Through Bomb	PBXN-110 PBXN-109	PBXN-110 Thermobaric Explosive PBP-003 or PBP-003-02 (equivalent of PBXN-113)
Explosive Weight Augmenting Charge Follow Through Bomb	~24 kg ~35 kg	~24 kg ~35 kg
Guidance	HGK, GBU-10 E/B	HGK, GBU-10 E/B
Penetration	Min 2.1 m, 35 MPa (5000 psi) reinforced concrete	Min 2.1 m, 35 MPa (5000 psi) reinforced concrete
Fuze	Augmenting charge: ONUR-1 MOD4 Follow through bomb FMU-152 A/B 3" hard target fuzes	Augmenting charge: ONUR-1 MOD4 Follow through bomb FMU-152 A/B 3" hard target fuzes
Storage Life	10 years	10 years

Targets Buried Hard Targets

- Munition depots
- Underground petrochemical depots
- Bunkers
- Aircraft Shelters
- Command / Control Centers

Surface Targets

- Aircraft runways
- Dams
- Bridges
- Critical Buildings

Area Targets

- Radar antennas
- Stationary Air Defense Missile Sites
- Industrial Facilities
- Parked aircrafts



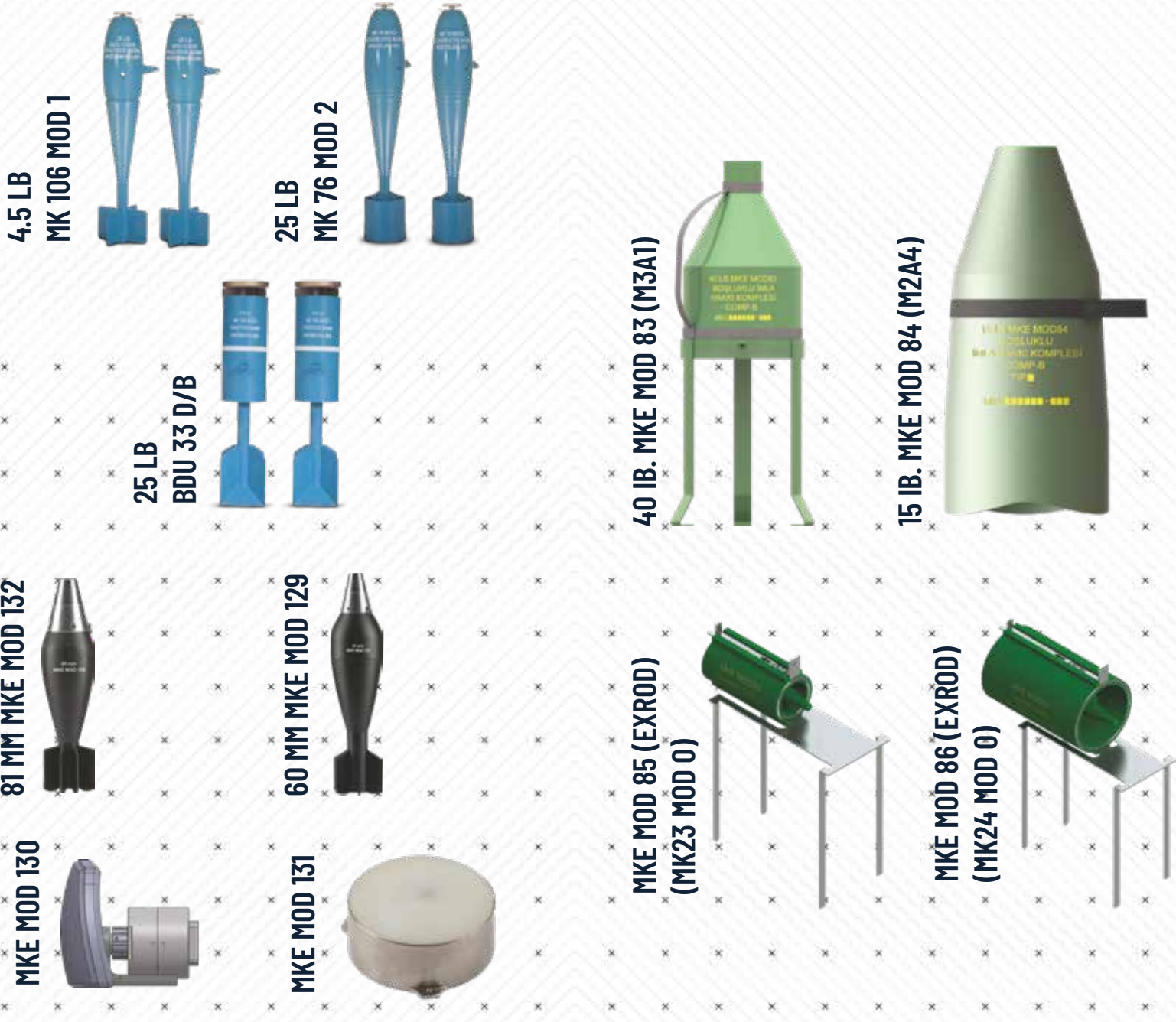
4.5 LB. & 25 LB.

AIRCRAFT TRAINING
AND PRACTICE BOMBS

	4.5 Lb MK 106 MOD 1	25 Lb MK 76 MOD 2	25 Lb BDU 33 D/B
Weight	2041 g	11339 g	11339 g
Length	495 mm	575±2.5 mm	575±2.5 mm

UAV AMMUNITION

	81 mm MKE MOD 132	60 mm MKE MOD 129	MKE MOD 130	MKE MOD 131
Complete Round Weight	~1900 g	~835 g	~700 g	~300 g
Complete Round Length	337 mm	245 mm	-	-
Filler	Comp B	Comp B	C4	C4
Filler Weight	~550 g	~160 g	~450 g	~95 g
Body Material	Composite	Composite	Plastic	Plastic
Cap Material	-	-	-	Steel
Fragment Amount	1296 pcs	480 pcs	820 pcs	688 pcs
Fuze	MKE MOD 128 UAV Mortar Ammunition Fuze	MKE MOD 128 UAV Mortar Ammunition Fuze	Electronic Fuze (STM)	-
Impact Diameter	-	-	~10 m	-
Weapon Used	Kargu UAV	Kargu UAV	Kamikaze UAV	Fixed Wing UAV



SHAPED DEMOLITION CHARGE

	40 lb. MKE MOD 83 (M3A1)	15 lb. MKE MOD 84 (M2A4)	MKE MOD 85 (EXROD) (MK23 MOD 0)	MKE MOD 86 (EXROD) (MK24 MOD 0)
Cone Material	Steel	Indicated Below	Copper	Copper
Body Material	Composite	Composite	Plastic (ABS)	Plastic (ABS)
Diameter	~245 mm	~182 mm	~45 mm	~80 mm
Total Height (w/stand) (w/o Stand)	~750 mm ~395 mm	~408 mm ~310 mm	- ~50 mm	- ~86 mm
Total Length	-	-	~110 mm	~150 mm
Complete Round Weight (w/stand) (w/o Stand)	~18,6 kg ~16,7 kg	Indicated Below	~210 g ~170 g	~700 g ~660 g
Main Charge	Comp B	Comp B	Comp C4	Comp C4
Main Charge Weight	~12500 g	~5800 g	~65 g	~415 g
Booster	Comp C4	Comp C4	-	-
Booster Weight	~75 g	~75 g	-	-
Performance	On reinforced concrete	Indicated Below	On steel plate	On steel plate
Hole Depth Hole Diameter	~1500 mm ~89 mm		min 7 mm min 10,9 mm	~15 mm ~14,3 mm
Packing	1 pc of demolition charge and stand/ wooden box	2 pcs of demolition charge and stands /wooden box	2 pcs of Demolition Charge / plastic container, 42 plastic containers and stands+sighting devices / wooden box	2 pcs of Demolition Charge / plastic container, 16 plastic containers and stands+sighting devices / wooden box

15 lb. MKE MOD 84 (M2A4)

	TYPE 1	TYPE 2
Cone Material	Aluminum	Copper
Complete Round Weight	~7660 g	~9060 g
Performance on the Plain Ground Hole Depth Hole Diameter	~1300 mm ~450 mm	~1600 mm ~300 mm



IGNITION CHARGES AND PRIMERS



	M5A1 Ignition Charge and M32 Primer	MKE MOD 29 Ignition Charge and M34 Primer	MKE MOD 30 Ignition Charge and M34 Primer	MKE MOD 37 Ignition Charge
Ignition Charge Weight	~5 g	~12 g	~14 g	~206 g
Ignition Charge Height	~36 mm	~49 mm	~54 mm	~145 mm
Ignition Charge Body Material	Craft Paper	Craft Paper	Craft Paper	Craft Paper
Ignition Charge Propellant	M9 Propellant	M9 Propellant	M9 Propellant	M8 Propellant
Ignition Charge Propellant Weight	~3.2 g	~6.5 g	~6.5 g	~30 g
Primer	M32 Primer	M34 Primer	M34 Primer	Percussion Primer
Primer Weight	~22 g	~48 g	~48 g	-
Primer Material	Brass	Brass	Brass	Brass
Primer Propellant	Black Powder	Black Powder	Black Powder	Black Powder
Ammunition Used	60 mm M49A2 and MKE MOD 257 Mortar Ammunition	81 mm M43A1B1, MKE MOD 273 Mortar Ammunition	81 mm MKE MOD 214, MKE MOD 238, M301 A2 Mortar Ammunition	120 mm MKE MOD 209, MKE MOD 228, MKE MOD 236 A1, MKE MOD 250 Mortar Ammunition

BLOCK DEMOLITION CHARGES



SALUTING CHARGES



	1/2 lb.	1 lb.	2.5 lb.
Weight	~250 g	~500 g	~1150 g
Dimensions	49×93×49mm	49×176×49mm	59×300×59 mm
Filler	TNT	TNT	Comp C4
Packing	100 pcs/wooden box	50 pcs/wooden box	20 pcs/wooden box

	60 MM MKE MOD 82 SALUTING CHARGE	105 MM HOWITZER SALUTING CHARGE	105 MM TANK GUN SALUTING CHARGE
Complete Round Height	~160 mm	~184 mm	~214 mm
Cartridge Case	MKE MOD 82	Shortened M14	Shortened MKE MOD 26
Propellant Weight	~133 g	Type 1: 175 g Type: 425 g	~805 g
Primer	MKE MOD 73 Primer Assembly with M35 Primer	MKE MOD 89 Primer Assembly with M35 Primer	MKE MOD 27 Electrical Percussion Primer
Weapon Used	60 mm Saluting Gun	105 mm Howitzers	Tanks with 105 mm Gun
Packing	1 round / plastic container 30 plastic containers / wooden box	1 round / fiber container 10 fiber containers / wooden box	1 round / fiber container 10 fiber containers / wooden box



HAND GRENADES

MKE MOD 50
PRE-FRAGMENTED DEFENCE



	MKE MOD 50 PRE-FRAGMENTED DEFENCE
Complete Round Length	103 mm
Complete Round Weight	385 g
Body Diameter	61 mm
Body Length	~ 73 mm
Body Material	Plastic
Fragments	Steel (1600 pcs)
Filler	Comp-B
Filler Weight	~ 32 g
Fuze	MKE MOD 117
Fuze Delay Time	3.9 - 5.2 s
Impact Radius	~10 m
Sound Intensity	-
Packing	10 fuzes / plastic box 4 plastic boxes and 40 hand grenades / wooden box

MKE MOD 119 OZOK



	MKE MOD 119 OZOK
Complete Round Length	138 mm
Complete Round Weight	325 g
Body Diameter	27 mm
Body Length	~ 111 mm
Body Material	1020, 1030 Steel
Fragments	Steel (162 pcs)
Filler	C4 or TNT
Filler Weight	~ 34 g
Fuze	MKE MOD 49
Fuze Delay Time	3,9 - 5,2 s
Impact Radius	-
Sound Intensity	128 decibel (@10 m)
Packing	10 fuzes / plastic box 4 plastic boxes and 40 hand grenades / wooden box

MKE MOD 125 THERMOBARIC



	MKE MOD 125 THERMOBARIC
Complete Round Length	140 mm
Complete Round Weight	800 g
Body Diameter	57,5 mm
Body Length	113 mm
Body Material	Plastic
Fragments	Steel (620 pcs)
Filler	ThermoBaric Explosive PBP-003 (equivalent of PBXN-113)
Filler Weight	210 g
Fuze	MKE MOD 49
Fuze Delay Time	3,9 - 5,2 s
Impact Radius	min 11 m
Sound Intensity	-
Packing	10 fuzes / plastic box 4 plastic boxes and 40 hand grenades / wooden box

HAND GRENADES

MK2
DEFENCE



MK2 MOD 44
DEFENCE



MK2 MOD 46
PRACTICE



MK2
PRACTICE



	MK2 DEFENCE	MK2 MOD 44 DEFENCE	MK2 MOD 46 PRACTICE	MK2 PRACTICE
Weight	640 g	640 g	565 g	565 g
Length	120 mm	120 mm	120 mm	120 mm
Body Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Filler	TNT or Comp B	TNT or Comp B	Sorel Cement	Sorel Cement
Filler Weight	~35 g	~35 g	-	-
Fuze	MKE MOD 45 or MKE MOD 45 B1	M204A2 or M204A2T1	MKE MOD47 or MKE MOD47B1	M205A2 or M205A2T1
Delay Time	3,90 - 5,20 s	3,90 - 5,20 s	3,90 - 5,20 s	3,90 - 5,20 s
Packing	10 fuzes / plastic box 4 plastic boxes and 40 hand grenades / wooden box			

MKE MOD 56 A1 B1
RIOT CONTROL



MKE MOD 48
OFFENSIVE



MK3 A2
OFFENSIVE



	MKE MOD 56 A1 B1 RIOT CONTROL	MKE MOD 48 OFFENSIVE	MK3 A2 OFFENSIVE
Weight	264 g	335 g	335 g
Length	175 mm	145 mm	145 mm
Body Length	-	111 mm	111 mm
Body Material	Plastic	Craft Paper	Craft Paper
Filler	OC	TNT	TNT
Filler Weight	~12 g	~250 g	~250 g
Fuze	MKE MOD 57	MKE MOD49 or MKE MOD49 B1	M206 A2 or M206 A2 T1
Packing	10 fuzes / plastic box 4 plastic boxes and 40 hand grenades / wooden box		



2.75 INCH
ROCKET WARHEADS

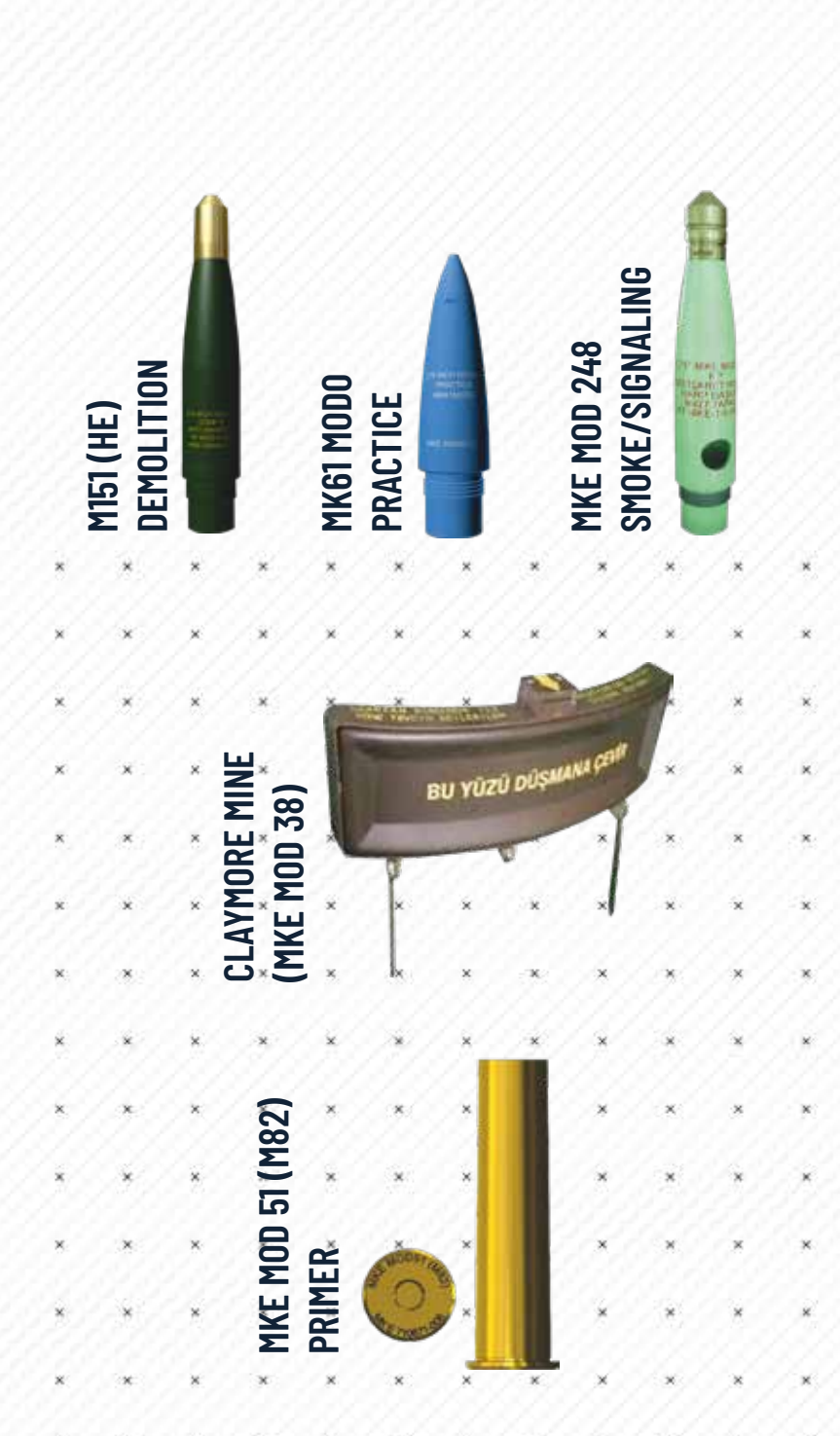
	M151 (HE) DEMOLITION	MK61 MOD0 PRACTICE	MKE MOD 248 SMOKE/SIGNALING
Length	~328 mm (w/o fuze)	~278 mm (w/o fuze)	~408 mm (w/fuze)
Weight (w/o fuze)	~4040 g	~2800 g	~3500 g
Filler	Comp B	-	Smoke / Signaling flare
Filler Weight	~1043 g	-	-
Fuze	M423, M427, MKE MOD 155	-	M427 (no booster)
Packing	1 round /fiber container 4 fiber containers /wooden box		

CLAYMORE MINE
(MKE MOD 38)

Weight	1330 g	Weight	~400 g
Complete Length	218 mm	Complete Length	~850 mm
Complete Width	232 mm	Complete Width	30 pcs / wooden box
Filler	Comp C4		

MKE MOD 51 (M82)
PRIMER

Type	Percussion
Total Weight	63,5 g
Total Length	4,93 cm
Filler	1,43 g black powder
Weapon Used	155 mm: M109A1, M109 175 mm: M107 8 in: M55, M110, M110E2
Packing	20 pcs/fiber container 25 pcs fiber container /wooden box



PROPELLING CHARGES FOR
HOWITZER AMMUNITION



	M3A1	M4A2	M119 A2
Description	The M3A1 propelling charge is a green bag type designed for use in 155mm howitzers for firing in Zones 1 through 5.	The M4A2 propelling charge is a white bag type designed for use in 155mm howitzers for firing in Zones 3 through 7.	The M119A2 propelling charge is a Zone 7 red bag charge for firing in 155mm Howitzers containing M185 and M199 cannon tubes
Cannon Used With	M1, M1A1, M45, M126, M126A1, rd M185, M199, Panter and Firtina (from 3 green bag)		M185 (M109A1/A2/A3; M199 (M198), Panter, Firtina
Diameter	max. 127 mm	max. 127 mm	max. 158 mm
Complete Length	max. 406, min. 355	max. 534, min. 483	max. 725
Complete Round Weight	~2,8 kg	~6,35 kg	~10,7 kg
Type	Green bag, separate loading	White bag, separate loading	Red bag, separate loading
Ignition Charge	CBI propellant; 100 g	CBI propellant; 100 g	CBI propellant; 113 g
Propellant	Single perf. M1 propellant (~2,5 kg)	Multi perf. M1 propellant (~6,1 kg)	M6 propellant (9.5 kg)
Flash Reducer	Potassium Sulphate	Potassium Sulphate	Potassium Sulphate
Primer Type	Separate primer, MKE MOD 51, M82, MK2A4 or equivalents	Separate primer, MKE MOD 51, M82, MK2A4 or equivalents	Separate primer, MKE MOD 51, M82 or equivalents

	M1	M2
Use	Green bag propelling charge is used for zone firing with Charges 1 to 5 in 8" howitzer cannons	White bag propelling charge is used for zone firing with Charges 5 through 7 in 8" howitzer cannons
Description	The charge consists of a base section (Charge 1) and four unequal increments (2 through 5) of propellant M1 in green cloth bags	The charge consists of a base section (Charge 5) and two unequal increments (6 and 7) for zone firing
Cannons Used With	M2, M2A1 (M115), M47 (M55), M2A2 (M110)	M2, M2A1 (M115), M47 (M55), M2A2 (M110)
Diameter	Max 165.1 mm	Max 196.8 mm
Complete Length	Max 533.4 mm	Max 609.6 mm
Type	Green bag, separate loading	White bag, separate loading
Ignition Charge	Red Igniter pad containing black powder (~142 g)	Red Igniter pad containing black powder (~142 g)
Propellant	Single perf. M1 propellant	Multiperf. cylinder M1 propellant
Propellant Weight	~6 kg	~13 kg
Flash Reducer	-	M3







EMNİYET MAHALLESİ DÖĞOL CAD. NO: 2 ANADOLU MEYDANI 06560 ANKARA/TÜRKİYE
TEL: +90 312 296 10 00 • FAKS: 0312 296 16 99 • EXPORT@MKE.GOV.TR